

Florida Manatees, *Trichechus manatus*
(Sirenia: Trichechidae),
in North Carolina 1919–1994

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ABSTRACT—Florida manatees, first reported in 1919 from North Carolina, are now known to have frequented 59 sites (68 individuals) during the period of 1919–1994. All but two have been subadults of about 1.8–2.4-m lengths. Only seven deaths have been recorded. Eleven coastal counties have harbored manatees. Four occurrences have been at inlets and six in the open ocean. Pelletier Creek, a Carteret County tributary of Bogue Sound, along with the Atlantic Ocean have been the most frequented sites (6); eight manatees occurred at a lush vegetation site in the Trent River (Craven County), a tributary of the Neuse River. Four records came from Wrightsville Beach and Sound, three manatees entered the state from Chesapeake Bay via the canal and Intracoastal Waterway into Currituck Sound. Farthest inland river penetrations have been 94.4 km, 6.4 km north of Wilmington; 92 km, Neuse River at Fort Barnwell Bridge, 33 km northeast of New Bern (Craven County); and one each penetrated the Tar River at Washington (58 km, Beaufort County) and Greenville (88 km, Pitt County). The increased frequency of occurrences in later years may be the result of an increased public awareness of the federally-protected species rather than a seemingly increasing population.

The Florida manatee, *Trichechus manatus*, can attain a size of 4.1 m, 1,620 kg, and ranges from Maryland (Chester River, Chesapeake Bay) to Louisiana in the northern Gulf of Mexico (C. Beck, National Biological Service, personal communication; Jefferson et al. 1993). Northernmost manatee records in North Carolina have been in Currituck Sound (Dare County) (Brimley 1905, 1946; Brimley 1931; Caldwell and Golley 1965) (Table 1, Fig. 1). My study summarizes early records, adds 44 new records (total 59) and comments on where, when, and what size manatees have occurred in North Carolina.

Table 1. Occurrences of manatees in North Carolina 1919-1994 by year, locality, number, status alive (A) or dead (D), size (meters), literature reference, and county.

Date	Locality	N	Status	Approx. Size	County	Reference or Authority
1919	Masonboro Sound near Wilmington	1	A	2.2	New Hanover	Brimley 1931, 1946
1934	Currituck Sound near Duck (Duck Sound)	1	A	3.0	New Hanover	Brimley 1946
1936	Cape Lookout	1	D	3.3	Carteret	Rathbun et al. 1981
1952	Southport	1	A		Brunswick	Rathbun et al. 1981
1960	Wrightsville Beach	1	A		New Hanover	Smith 1960
1970	Wrightsville Beach	1	D		New Hanover	Rathbun et al. 1981
1972	Near Southport	1	A		Brunswick	Rathbun et al. 1981
1972	Wrightsville Beach	2	A		New Hanover	Rathbun et al. 1981
1975	Cape Hatteras, Pamlico Sound	1	A		Dare	Rathbun et al. 1981
1975	3.2 km north of Cape Lookout in Barden's Inlet	1	A		Carteret	Clark, NCMNS ¹
1976	Calabash River	2	A		Brunswick	Rathbun et al. 1981
1976	Ocean Isle Beach	1	A		Brunswick	Rathbun et al. 1981
1976	Cape Fear River near CPL Power Plant	1	A		Brunswick	Rathbun et al. 1981
6-9 August	Carolina Beach - Ocean	2	A		New Hanover	Rathbun et al. 1981
Fall	Wrightsville Beach Jetty	1	A		New Hanover	Rathbun et al. 1981
August	Lower Cape Fear River	1	A		New Hanover	Rathbun et al. 1981
August	Minnesott Beach Yacht Basin, Neuse River	3	A	1.4-2.0	Pamlico	Lee 1976
1981	Silver Lake, Ocracoke	1	A	1.5	Hyde	This study
4 August	Pelletier Creek, tributary to Bogue Sound, Morehead City	1	A	1.6	Carteret	This study
30 September	Pelletier Creek	1	A		Carteret	This study
1982	Avalon Fishing Pier, Atlantic Ocean, Kill Devil Hills	1	A	2.4	Dare	C. Beck ¹
10 July	Trent River	1	A		Craven	Clark ¹
August	Ocean off Bogue Banks	1	A	2.0	Carteret	This study
August	Neuse River near Oriental	1	A	2.0	Pamlico	This study
9 October	Pelletier Creek	1	A	1.8	Carteret	This study
18-19 October	Pelletier Creek	1	A	1.8	Carteret	This study

Table 1. Continued.

Date	Locality	N	Status	Approx. Size	County	Reference or Authority
1983	Ocracoke Island	1	A	2.0	Hyde	This study
24 June	Ocean off Shackleford Banks opposite					
August	Bottle Run Point in Back Sound	1	A	1.8	Carteret	This study
10-15 September	10-15 km North of Cape Hatteras near Rodanthe, Pamlico Sound	1	A		Dare	This study
15 September	8 km North Roanoke Island, Albemarle Sound	1	A	3.0	Dare	This study
30 September	North end Wanchese Harbor	1	A	3.8	Dare	This study
	Davis Harbor, Core Banks, Davis Stumpy Point, Pamlico Sound,	1	A	1.5	Carteret	This study
23 October	Later died off Pungo River	1	A-D	S	Dare/Beaufort	This study
24 October	12.9 km North Roanoke Island	1	A	3.0	Dare	This study
2 November	Tar River, Greenville	1	A		Pitt	This study
1984	5 January	1	A	2.75	Beaufort	Beck ¹
	Wade Point, Pamlico River near Pungo River	1	A		Beaufort	Beck ¹
	Pamlico River, Pamlico Beach	1	D		Beaufort	Beck ¹
1985	6 January	1	A	1.4	Pitt	Beck ¹
20 September	Tar River 0.3 km upstream of Washington	1	A			Beck ¹
1986	11 March	1	D	2.2	Brunswick	Beck ¹ NCMNS5252
September-October	Cape Fear River near Marker 50 west side Channel	1				
1987	October	1	A	1.8	Dare	This study
9 September	Collington Bay near Kitty Hawk Ft. Macon Coast Guard Harbor, Beaufort Inlet, Morehead City	1	A	2.0	Carteret	This study
9 September	South side Hatteras Island creek near Rodanthe, South end	1	A	2.1	Dare	This study
24 September	Ft. Macon Coast Guard Harbor	1	A		Carteret	Clark ¹
1990	22 January	1	A-D	2.1	Hyde	Beck ¹ NCMNS6211
	Pamlico Sound 3.2 km NNE of Ocracoke-Gap Point	1	A	1.6	Carteret	This study
30 September	Pelletier Creek	1	A			
2 October	Pelletier Creek	1	A	1.6	Carteret	This study

Table 1. Continued.

Date	Locality	N	Status	Approx. Size	County	Reference or Authority
1992						
Summer	Pamlico Sound, Brant Island Shoals	1	A	2.0	Hyde	This study
29 July	Wrightsville Beach, Airie Marina & Route U.S. 74	1	A	3.0	New Hanover	This study
18 November	Back Sound, off Harkers Island	1	A	1.4	Carteret	This study
11 July	Northeast Cape Fear River, 6 km North of NC 210	1	A	1.5	Pender ²	This study
24 August	Trent River 1.6 km upstream of U.S. 70, New Bern	1	A	1.5	Craven	This study
August-September	Elizabeth River - Intracoastal Canal to Currituck Sound	3	A	1.4-1.6	Currituck	This study
1 September	Davis Harbor, Core Sound, Davis	1	A	1.5	Carteret	This study
7 July	Cape Fear River at south end Wilmington port facility, east side at Wilmington Center Marina	1	A	1.8	New Hanover	This study
14 July	Trent River 1.6 km west of Trent River Bridge, U.S. 70	1	A	1.8	Craven	This study
30 August	Trent River, Lawson Park, just north of US 70 Bridge over river	1	A	1.8	Craven	This study
17 September	Trent River, Sheraton Hotel Marina, New Bern	3	A	1.4-1.8	Craven	This study
22 September	Trent River, Sheraton Hotel Marina, New Bern	1	A	1.8	Craven	This study

¹ Personal communication. ² Wilmington Morning Star 7/20/93.

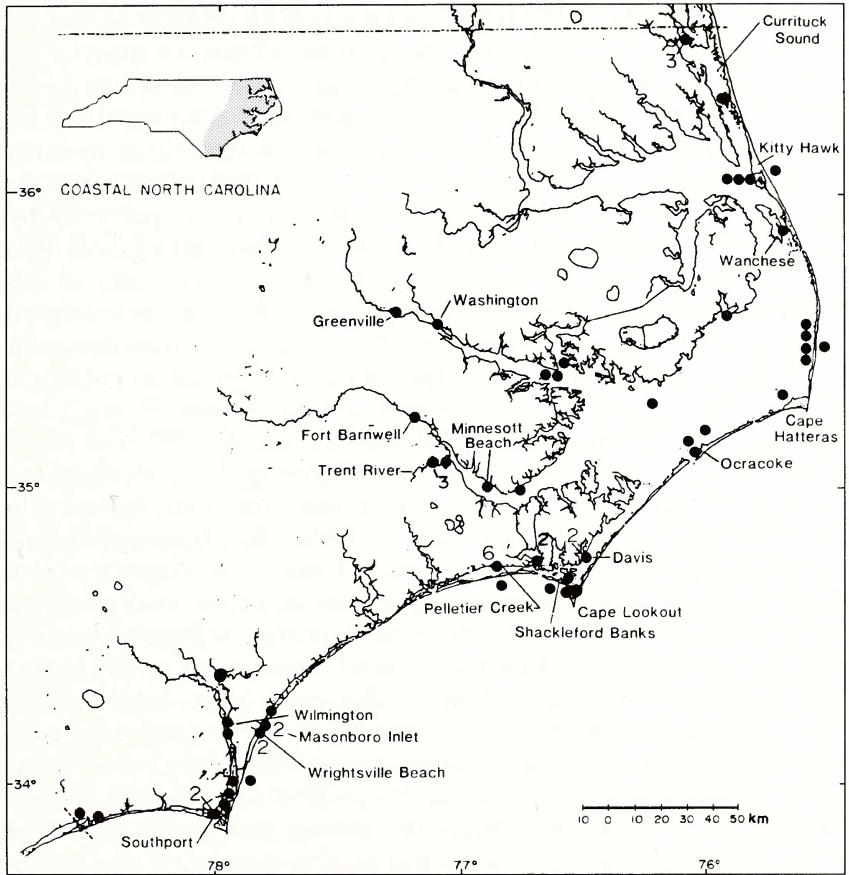


Fig. 1. Locations for 68 manatee sightings in North Carolina during the years 1919-1994.

EARLY LITERATURE OBSERVATIONS

Fifteen live and three dead manatees were reported (16 sites) from North Carolina between 1919 and 1976 by Brimley (1931, 1946), Lee (1976), Rathbun et al. (1981), and Smith et al. (1960). The specimen from Currituck Sound near Duck (Brimley 1946) was about 3 m long. None was weighed, although a Wrightsville Sound specimen and the Currituck specimens were estimated to weigh 450 kg (Brimley 1931, 1946). Clark (National Marine Fisheries Service, personal communication) recorded a live manatee near Cape Lookout 25 June 1975.

RECENT NORTH CAROLINA OBSERVATIONS

Manatees are now known (68 individuals from 59 sites) to frequent nearly all North Carolina ocean and inland waters (Table 1, Fig. 1). From 1977 to 1994, C. Beck (National Biological Service, personal communication) reports three live and three dead manatees from six sites between 1982 and 1990; Clark adds two additional live individuals in 1982 and 1987 and the remaining 42 specimens (41 sites) are from my study (Table 1). All but four occurrences have been of live specimens. Recent manatee sightings have been of sub-adults or young about 1.8–2.4 m long (Table 1). None has been weighed. Manatees have been recorded from 11 coastal North Carolina counties (Table 1); 15 occurrences have been in Carteret County, nine each in Dare and New Hanover, and eight in Craven County. Most sightings occurred in 1983 and 1994 (nine), five in 1976, and two to four sightings during most other years. Sightings have occurred during nine months of the year, mostly in September (14), followed by eight in August and October (Table 1). Most often frequented localities have been: Pelletier Creek (six), a tributary to Bogue Sound at Morehead City (Carteret County), various localities in the Atlantic Ocean (6), four at Wrightsville Beach and Sound (New Hanover County), and the Trent River near New Bern, North Carolina (8) (Craven County). While Rathbun et al. (1981) noted that open ocean habitat occurrences are rare, four North Carolina records have been from inlet-ocean sites and six in the open ocean. Of the latter, three ocean occurrences were off Shackleford Banks (Carteret County), one off Wrightsville Beach (New Hanover County), and one each off the Outer Banks off Avon and Kitty Hawk (Dare County) (Fig. 1). Most sightings have been of single individuals; the largest groups sighted for several days before disappearing were three at Minnesott Beach Yacht Basin, a tributary to the Neuse River (Pamlico River) in August 1980, and three in the Trent River at the Sheraton Yacht Harbor, New Bern (Craven County) in September 1994.

Although six records are of manatees frequenting Pelletier Creek, the area seems an unlikely manatee habitat as the short 0.8 km creek is plied by many boats, pollution is heavy from numerous boat works and marinas, and considerable runoff occurs from the densely built houses and condominiums lining the shoreline. Yet manatees have spent several days in the creek during each visit. In 1993 to 1994 two (once) to six separate manatees frequented the same general area of the coffee-colored Trent River, tributary to the Neuse River, 2 km southwest of New Bern (Craven County) and fed on dense aquatic vegetation. Three specimens frequented the river 0.2 km west of New

Bern, at Lawson Park or the Sheraton Hotel Yacht Basin in 1994. The 1993 specimen was followed downstream in the Neuse along its western shore for 13 km before vanishing. The July 1994 specimen did not linger in the Trent River prior to its next (presumed) sighting in the lower Neuse River opposite Oriental in late July. August-September 1994 specimens lingered and fed on the lush vegetation of the Trent River even as late as 24 September 1994. Bottom and surface salinities 17 September 1994 were 14 and 7 ppt respectively.

INLAND PENETRATIONS

Manatees are known to penetrate inland freshwater such as the St. John's River of Florida for 224 km to Lake Monroe (Volusia County; D. Odell, Sea World Inc., personal communication). Farthest inland river penetrations by manatees in North Carolina have been: Cape Fear River (one) for 94.4 km-6.4 km above Route 210 and north of Wilmington (Pender County) 11 July 1993, and one for 92 km in the Neuse River to the Fort Barnwell Bridge (Craven County) in October 1980, 33 km northeast of New Bern (Fig. 1). Two other manatees occurred in the Tar River system of the upper Pamlico River, a tributary of Pamlico Sound: one for 88 km to Greenville (Pitt County) in November 1989 and the other for 58 km to just upstream of Washington (Beaufort County) (Fig. 1) in September 1985. The most peculiar movements have been of three manatees that traversed south from the lower Chesapeake Bay in late summer of 1993 via the canal and Intracoastal Waterway into Currituck Sound (Fig. 1). While most manatee sightings have been at localities which could have been reached via the Intracoastal Waterway and sounds, the four inlet and six ocean occurrences also suggest travel north from Florida to North Carolina may have been via those avenues. In any event, observations seem to indicate many more young manatees are expanding their range into North Carolina, perhaps as a result of an increased public awareness of Florida's manatees rather than a real population increase.

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Hanover Public Library (Cape Fear River stories); J. Oakley, Carolina Biological Lab, Burlington (early Brimley references); M. Nabinetts, Washington Daily News (Pamlico River stories), N. Winfrey, Oriental News (comments on lower Neuse River observations); M. Clark provided the three North Carolina State Museum of Natural Sciences records and checked the Museum overall occurrence records. D. Lee of the North Carolina State Museum of Natural Sciences reviewed the paper, as did C. Potter, National Marine Fisheries Service, Division of Mammals (North Carolina data). D. Webster, University of North Carolina, Wilmington, noted the 29 July 1992 record. L. White typed the text; R. Barnes produced Figure 1.

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